

### **DETAILED ACTION**

1. In an amendment dated, May 20<sup>th</sup>, 2008, the Applicants amended claim 66 and added new claims 73-89. Currently claims 62, 66 and 68-89 are pending.

#### ***Continued Examination Under 37 CFR 1.114***

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 20<sup>th</sup>, 2008 has been entered.

#### ***Response to Arguments***

3. Applicant's arguments with respect to claims 62, 66 and 68-72 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Claim Objections***

4. Claims 66, 76-80 are objected to because of the following informalities: each claim recites "said electronic display." There is no discussion of specific *electronic* displays in any of the independent claims. Appropriate correction is required.

5. Claims 74, 78-81 are objected to because of the following informalities: each claim recites "said control member." There is no discussion of specific control *members* in the independent claim 73. Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 75-76 and 82-87 all recite the limitation "said panel." There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 73-81, 87 and 89 are rejected under 35 U.S.C. 102(e) as being anticipated by Freeman et al. (US 5,931,764).

**With respect to claim 73**, Freeman discloses a clothing apparel (fig. 1):

a flexible display (12 in fig. 1) formed on said clothing apparel from a layer of a light emitting polymer (col. 3, lines 55-58) and a fabric base (26, 28 in fig. 2a; col. 3, lines 4-6, polyester), said flexible display having fabric-like characteristics to conform to the body of the participant like a fabric (col. 1, lines 14-20) and arranged to display selectively one of a plurality of images (fig. 6); and

a controller generating signals for said display, said signals defining said images (40 in fig. 5).

**With respect to claim 74**, Freeman discloses, the clothing apparel of claim 73 (see above), further comprising a memory (col. 4, lines 12-16; storage inherently

requires a memory) arranged to hold data associated with images, a control member being coupled to said memory to receiver said data to generate said electrical signals (col. 4, lines 12-16).

**With respect to claim 75**, Freeman discloses, the clothing apparel of claim 73 (see above), further comprising a securing member arranged to secure said panel on the body of said person (23-25 in fig. 1; buckle).

**With respect to claim 76**, Freeman discloses, the clothing apparel of claim 73 (see above), wherein said electronic display is integrally incorporated into said panel (clear from figs. 1-2a).

**With respect to claim 77**, Freeman discloses, the clothing apparel of claim 73 (see above), wherein said electronic display is constructed to and arranged to show color images in response to said electrical signals (fig. 10).

**With respect to claim 78**, Freeman discloses, the clothing apparel of claim 73 (see above), wherein said control member generates electrical signals defining a static image on said electronic display (col. 2, lines 61-65).

**With respect to claim 79**, Freeman discloses, the clothing apparel of claim 73 (see above), wherein said control member generates electrical signals defining a dynamic image on said electronic display (col. 3, lines 15-17, video graphics).

**With respect to claim 80**, Freeman discloses, the clothing apparel of claim 73 (see above), wherein said control member generates signals defining a monochromatic image on said electronic display (col. 5, lines 65-66).

**With respect to claim 81**, Freeman discloses, the clothing apparel of claim 73 (see above), wherein said control member generates signals defining an image composed of alphanumeric characters (fig. 6).

**With respect to claim 87**, Freeman discloses, the clothing apparel of claim 73 (see above), wherein said panel is sized and arranged to form a part of a belt (col. 1, line 18).

**With respect to claim 89**, Freeman discloses, the clothing apparel of claim 73 (see above), wherein said display is composed of two-dimensional array of pixels (col. 3, lines 25-27).

### ***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 62, 68-70 and 72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lebensfeld et al. (US 6,302,796) in view of Freeman et al. (US 5,931,764).

**With respect to claim 62**, Lebensfeld discloses, an apparatus for playing a war game comprising:

a clothing article constructed to be worn by a participant in said war game (fig. 2);  
a display (32 and 35-36 in fig. 2) formed on said clothing article formed of a layer of a light emitting polymer and a fabric base, said flexible display having fabric-like

characteristics to conform to the body of the participant like a fabric and arranged to display selectively one of a plurality of images (any of the selected teams; and hit and blast shield indicators; col. 5, lines 33-36);

a controller (95 in fig. 9) generating signals for said display, said signals defining said images (col. 10, lines 46-51);

a gun (12 in fig. 2) coupled to said controller (23 in fig. 2), said gun generating a beam when activated by said participant (col. 6, lines 17-20); and

a sensor mounted on said clothing article (14 and 15 in fig. 2) and coupled to said controller (clear from figs. 8-10; also note col. 11, lines 18-24), said sensor detecting a hit from the gun of other participants (col. 6, lines 19-23);

wherein controller generates an indication corresponding to said hit (col. 5, lines 33-35, for example).

Lebensfeld does not expressly disclose, wherein the display is a flexible display formed on said clothing article formed of a layer of light emitting polymer and a fabric base said flexible display having fabric-like characteristics to conform to the body of the participant like a fabric.

Freeman discloses, a flexible display (12 in fig. 1) formed on a clothing article (col. 1, lines 14-20) formed of a layer of a light emitting polymer (col. 3, lines 55-58) and a fabric base (26-28 in fig. 2a; col. 3, lines 4-6, polyester) said flexible display having fabric-like characteristics to conform to the body of a wearer like a fabric (col. 1, lines 14-25).

Freeman and Lebensfeld are analogous art because they are from the same field of endeavor namely, incorporation of electronic displays into clothing articles.

At the time of the invention it would have been obvious to one of ordinary skill in the art to replace the display of Lebensfeld with the flexible, polymer display of Freeman.

The motivation for doing so would have been provide a small, lightweight and comfortable device (Freeman; col. 1, lines 55-60).

**With respect to claim 68**, Lebensfeld and Freeman disclose, the apparatus of claim 62 (see above).

Lebensfeld further discloses, wherein said sensor is disposed adjacent said flexible display (clear from fig. 2).

**With respect to claim 69**, Lebensfeld and Freeman disclose, the apparatus of claim 68 (see above).

Lebensfeld further discloses, wherein said sensor is surrounded by said flexible display (clear from fig. 2).

**With respect to claim 70**, Lebensfeld and Freeman disclose, the apparatus of claim 62 (see above).

Freeman further discloses, a memory (col. 4, lines 12-16; storage inherently requires a memory) arranged to hold data associated with images, a control member being coupled to said memory to receiver said data to generate said electrical signals (col. 4, lines 12-16).

At the time of the invention it would have been obvious to one of ordinary skill in the art to include memory, as taught by Freeman, in the display of Lebensfeld.

The motivation for doing so would have been to produce animation sequences (Freeman; col. 4, lines 12-16).

**With respect to claim 72**, Lebensfeld and Freeman disclose, the apparatus of claim 62 (see above).

Lebensfeld further discloses, wherein said flexible display is integrally incorporated into said clothing article (clear from fig. 2).

12. Claim 66 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lebensfeld et al. (US 6,302,796) in view of Freeman et al. (US 5,931,764) and further in view of Samuel et al. (US 6,313,261).

**With respect to claim 66**, Lebensfeld and Freeman disclose, the apparatus of claim 62 (see above).

Neither Lebensfeld nor Freeman expressly disclose, a protective layer.

Samuel further discloses, wherein said electronic display includes a protective layer on top of said layer of light emitting polymer material, said protective layer being made of one of a transparent and translucent material (col. 5, lines 48-50).

Samuel, Freeman and Lebensfeld are analogous art because they are from the same field of endeavor namely, incorporation of electronic displays into clothing articles.

At the time of the invention it would have been obvious to one of ordinary skill in the art to include the protective layer on the display of Lebensfeld and Freeman as taught by Samuel.

The motivation for doing so would have been the well-known advantage of protecting the polymer material from the environment.

13. Claim 71 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lebensfeld et al. (US 6,302,796) in view of Freeman et al. (US 5,931,764) and further in view of Chu (US 6,279,170).

**With respect to claim 71**, Lebensfeld and Freeman disclose, the apparatus of claim 62 (see above).

Neither Lebensfeld nor Freeman expressly disclose, wherein said flexible display is formed on a separate panel, said apparatus further comprising a securing member arranged to secure said panel to said clothing article.

Chu discloses, a flexible display that is formed on a separate panel (col. 1, lines 37-41), said apparatus further comprising a securing member arranged to secure said panel to said clothing article (col. 1, lines 37-41).

Chu, Lebensfeld and Freeman are analogous art because they are from the same field of endeavor namely, incorporation of electronic displays into clothing articles.

At the time of the invention it would have been obvious to one of ordinary skill in the art to form the display of Lebensfeld and Freeman on a separate panel as taught by Chu.

The motivation for doing so would have been clear advantages such as allowing the user to interchange displays, as well as to simply remove the display all together.

14. Claims 82-86 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freeman et al. (US 5,931,764) and in view of Albert et al. (US 6,252,564).



**With respect to claims 82-86**, Freeman discloses, the clothing apparel of claim 73 (see above).

Freeman does not expressly disclose all of the clothing articles in the claims.

Albert discloses, sizing and arranging a panel to form part of a shirt (fig. 9), tie, suspenders, vests and hats (col. 19, lines 1-9).

Albert and Freeman are analogous art because they are from the same field of endeavor namely wearable displays.

At the time of the invention it would have been obvious to incorporate the display device of Freeman into the other articles of clothing taught by Albert for the well-known advantage of providing a display on these articles.

15. Claim 88 is rejected under 35 U.S.C. 103(a) as being unpatentable over Freeman et al. (US 5,931,764) and in view of Salley (US 5,722,192).

**With respect to claim 88**, Freeman discloses the clothing apparel of claim 74 (see above).

Freeman does not expressly disclose that the memory is replaceable.

Salley discloses a wearable display (fig. 11, for example), comprising a replaceable memory (30 in fig. 1; col. 5, lines 41-43).

Salley and Freeman are analogous art because they are from the same field of endeavor namely wearable displays.

At the time of the invention it would have been obvious to one of ordinary skill in the art to include the replaceable memory of Salley in the device of Freeman for the

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advantage of allowing an wide variety of programs and images to be displayed (Salley; col. 5, lines 43-50).

### ***Conclusion***

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to WILLIAM L. BODDIE whose telephone number is (571)272-0666. The examiner can normally be reached on Monday through Friday, 7:30 - 4:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz can be reached on (571) 272-3638. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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